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NEW SPECIES OF NEOTROPICAL HESPERIIDAE (LEPIDOPTERA: RHOPALOCERA)

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The insects which form the basis of the following descriptions are all contained in the type collection of The American Museum of Natural History.

Atrytone ricana, new species

Figure 1

MALE.—Upper side brown. Primaries with dark fulvous scales and hairs in the basal area; a small bright fulvous spot in the lower part of the cell near the apex; three fulvous subapical spots; a narrow discal band of five slightly paler fulvous spots, two in interspace 1, somewhat triangular and almost touching each other in the center of the interspace, a larger spot in interspace 2, one each in interspaces 3 and 4, that in 4 small. Fringes concolorous. No stigma. Veins of these wings slightly darker.

Secondaries with dark fulvous hairs in and below the cell, which cover a small fulvous spot in the cell. A discal band of four small bright fulvous spots. Fringes fulvous.

Beneath: Primaries with the costal, apical and outer marginal areas to vein 2 sordid yellowish fulvous, the rest blackish brown; the discal band repeated paler, the spot in the cell repeated and the subapical spots are repeated but barely contrast with the pale yellowish fulvous. Secondaries sordid yellowish fulvous; the discal band repeated but barely visible; outer marginal area slightly darker.

Above the palpi and head are fulvous, the head with a greenish reflection; body dark brown with fulvous hairs. Beneath the palpi are pale fulvous; pectus fulvous; thorax with fulvous hairs; abdomen whitish. Antennae black above, beneath fulvous, each joint narrowly edged with dark brown, the club fulvous, apiculus red.

EXPANSE.—30 mm.

TYPE MATERIAL.—Holotype male, Villarrica, Paraguay.

Resembles *mella* Godman in the shape of the wings but is a much darker insect due to the reduced fulvous areas.

Atrytone nayana, new species

Figure 2

MALE.—Upper side. Primaries with a broad outer marginal dark brown band; an irregular spot of the same color extending outwardly from the apex of the cell; the rest of the wings bright fulvous which extends along each vein into the dark outer marginal border. The veins are blackish brown. The fringes fulvous and brown becoming darker toward the apex of the wings. There is no stigma.

Secondaries above vein 8 pale brown; between veins 7 and 8 dark brown; interspace 6 mostly dark brown but with some fulvous in the center; a dark brown outer marginal border to the anal angle; all the rest of the wings bright fulvous. All the veins from 2 upward are blackish brown. Fringes fulvous.

Beneath paler than above. Primaries with a narrow black bar at the end of the cell; the base of the cell and interspace 1, the inner margin below vein 1, an outer marginal spot in interspace 1, and a submarginal spot in interspace 2 are all dark brown. All the rest pale fulvous. Secondaries with a hazy discal band of small paler spots.

Top of head, palpi and body bright fulvous. Beneath palpi, pectus and thorax bright fulvous; abdomen grayish white. Antennae above narrowly blackish, base of the club ringed with fulvous; beneath fulvous, spotted narrowly with black at the joints, the club fulvous, apiculus red.

EXPANSE.—25 mm.

TYPE MATERIAL.—Holotype male, Nayarit, Mexico.

This species resembles *Atrytone eulogius* Ploetz (*mellona* Godman) but it lacks the dark stripe along vein 2 of the upper side of the primaries and the fulvous area of the secondaries is more extended. The form of the male genitalia differs from that of *eulogius* in the termination of the claspers.

Atrytone (?) potesta, new species

Figure 3

MALE.—Upper side of both wings dark brown and immaculate. Fringes of primaries concolorous, a little paler at the inner angle; of the secondaries slightly paler than the wings, especially at the anal angle. There is no stigma.

Beneath dark brown. Primaries with a somewhat lunate pale yellowish spot in the basal third of interspace 2, the outer edge of which is

not sharply defined; a large wedge-shaped spot of the same color in interspace 1, broad externally and tapering inwardly. Secondaries with a very small whitish spot at about the center of the apex of the cell; a discal band of five spots, the lower one the larger and pale yellow; the next one above smaller and the same color; the next three very small and whitish.

Top of head, palpi, collar and shoulder covers dark brown and fulvous; body dark brown. Beneath palpi grayish; pectus grayish brown; thorax dark brown; abdomen yellowish white with a broad brown central stripe. Antennae above black; beneath blackish, the club and just below it pale yellow.

EXPANSE.—30 mm.

TYPE MATERIAL.—Holotype male, Iquitos. Peru.

This species may not be strictly congeneric with the others in the genus but it seems closely related. In superficial appearance it does not greatly resemble any other of the described *Atrytone* species.

Rhinthon iquita, new species

Figure 4

MALE.—Upper side dark brown. Primaries with a small semihyaline subapical spot in interspace 6; a small, quadrate hyaline spot in the basal quarter of interspace 3; a vertical hyaline bar, a little constricted in the center, in interspace 2. A narrow stigma lying along the upper side of the basal half of vein 1, completely covered by long brown hairs. Fringes concolorous.

Secondaries immaculate; fringes a little paler than the wings.

Beneath a little paler brown than above. Primaries with the spots of the upper side repeated but the subapical spot is very indistinct. Secondaries with two very minute, ill-defined pale dots between veins 2 and 4.

Top of head, palpi, collar and shoulder covers greenish. Body above brown. Beneath palpi grayish; pectus light brown with a green reflection; thorax grayish brown; abdomen grayish with a dark central line. Antennae black above; beneath brownish, the club and just below it yellow.

EXPANSE.—30 mm.

TYPE MATERIAL.—Holotype male, Iquitos, Peru.

This species resembles *Rhinthon* cynea Hewitson and *bistrigula* Herrich-Schaeffer but is smaller than either of them and from *cynea* it differs in lacking the whitish area at the inner angle of the primaries beneath; and from *bistrigula* in having the quadrate spot in interspace 3 of the upper side of the primaries farther removed outwardly from the spot in interspace 2. From both *cynea* and *bistrigula* it differs in the details of the male genitalia.

Vistigma zara, new species

Figure 5

MALE.—Upper side of both wings brown. Primaries with the costal margin from base to end of the cell bright yellow with a brown streak in the middle; a small orange-yellow spot near the upper corner of the apex of the cell; three elongate orange-yellow subapical spots, the lower one the longer, the middle one extending a little basad of the other two; a short, narrow, bright yellow inner marginal streak extending outward from the base; a discal band of six spots, the first narrow, elongate, bright yellow lying on vein 1 and connected with the base of the wing by a streak of similarly colored scales, the next spot just above the outer corner of the previous spot and under vein 2, very small and bright yellow; the next spot larger, subquadrate, same color, in interspace 2; the next spot smaller, slightly elongate, in interspace 3; then two small orange-yellow spots, one each in interspaces 4 and 5. The fringes are paler than the wings and become whitish at the inner angle and are feebly checkered from vein 2 upward. The stigma is very indistinct and is composed of a V-shaped part in the base of interspace 2 and a horizontal bar just under vein 2.

Secondaries with a discal band of five orange-yellow spots between veins 2 and 7, the one between veins 4 and 5 is elongate and extends outward from near the end of the cell, the one between veins 5 and 6 is also elongate and inwardly begins at about the outer third of the previous spot and extends farther outward toward the outer margin of the wing, these two spots are nearly fused where they parallel each other, which gives the appearance of one very long stripe, the one spot above and two below are very much smaller. Fringes yellowish white and feebly checkered from vein 2 upward.

Beneath: Primaries with costal margin and apical area yellowish brown; the veins yellow beyond the discal band from vein 2 to the apex; a fine black marginal line; the rest of the wings blackish brown. Spots of the upper side repeated and bright yellow except the large spot just above vein 1 and the two yellow streaks, which are absent. Secondaries yellow-brown, all the veins yellow from vein 1 upward. Spots of the upper side repeated and bright yellow and an additional spot between veins 1 and 2 and another between veins 7 and 8. Abdominal fold blackish brown with a light overscaling of sordid yellowish, the inner margin yellow-brown. The fringes at the anal angle and along inner margin are yellow.

Top of head and body greenish yellow. Beneath the palpi and pectus are yellow, thorax with greenish-yellow hairs, abdomen white with a heavy blackish-brown central line. Legs

yellow-brown. Antennae above black, beneath brown, the club yellow.

EXPANSE.—30 mm.

TYPE MATERIAL.—Holotype male, Santa Cruz, Bolivia.

Zara is a little smaller but otherwise quite similar to *Phlebodes tiberius reticulata* Ploetz, differing on the upper side of the primaries in having the cell spot, and the spots of the discal band more separated, on the secondaries in the more separated spots of the discal band. On the under side the ground color of the wings is quite different from that of *reticulata*. The male stigma is of quite different form from that of the genus *Phlebodes*.

Papias larias, new species

Figure 7

MALE.—Upper side both wings brown and immaculate. Fringes concolorous, slightly paler at the tip.

Beneath brown. Primaries with three small, indistinct, paler spots, of which two are subapical and one near the middle of interspace 3. Inner margin and outer half of interspace 1 paler. Secondaries with a hazy indication of a discal band of paler spots.

Top of head and palpi dark brown and fulvous; body dark brown. Beneath palpi fulvous and brown, pectus and thorax fulvous brown. Antennae missing.

EXPANSE.—28 mm.

TYPE MATERIAL.—Holotype male, St. Laurent, French Guiana.

Slightly smaller than *Papias phainis* Godman and with different genitalia.

Mnasalcas (?) colomus, new species

Figure 6

MALE.—Upper side of both wings dark brown. Fringes concolorous. Stigma on the primaries heavily developed and somewhat darker brown than the wings, consisting of a stripe bordering the cell from the rise of vein 3 to near the angle formed by the rise of vein 2 and then bent directly downward to vein 2, immediately below and bordering vein 2 a squarish spot and below this a vertical bar extending to vein 1, this bar is slightly oblique from the base outwardly.

Beneath both wings paler brown than above. On the primaries the stigma of the upper side is distinctly shown in black scales. In interspace 1 beyond the black scales is a paler area and another smaller pale area at the anal angle. The secondaries have a small yellowish spot in the end of the cell at the lower corner and traces of three similar but smaller spots in interspaces 2, 3 and 4.

Top of the head and body dark brown, beneath the pectus is dark fulvous brown, thorax and abdomen dark brown. Palpi missing. Below the eyes dark fulvous. Antennae long, black on both sides, beneath the basal half of the club and just below it fulvous.

EXPANSE.—Male 40 mm.

TYPE MATERIAL.—Holotype male, Colombia.

Colomus is a much larger insect than *Mnasalcas uniformis* Butler and Druce and the color of the wings is not so black, the secondaries are more produced at the anal angle and the stigma of the primaries does not fill the angle at the rise of vein 2.

Vehilius danius, new species

Figure 8

MALE.—Upper side brown with a violet sheen at certain angles. Primaries with a few sordid yellowish scales representing subapical spots in interspaces 6 and 7 and sometimes in interspace 8; a spot in the upper part of the apical third of the cell; discal spots in interspaces 2 and 3, all of these spots are very small, ill defined and indistinct. Fringes concolorous in the upper part, becoming paler at the tip in the inner angle area.

Secondaries immaculate. Fringes brown at the base, whitish at the tip.

Under side brown. Primaries with a violet sheen, especially prominent on the costal margin, apical area and outer margin above vein 2. Inner margin paler; an elongate pale spot in interspace 1 from the center towards the outer margin. Veins in the apical area yellow and a narrow yellow streak below the costal margin from the base to the end of the cell, which is absent in the paratype. The subapical spots are small but better defined and more yellow than above. The fringes are a little darker brown than the wings.

Secondaries brown with a pronounced violet sheen. All the veins are yellow. A discal band of five yellow spots between veins 2 and 8, and a narrow, yellow marginal line; yellow streaks between the veins connect with each one of the spots of the discal band. The abdominal fold overscaled with yellow. Fringes dark brown at the base and sordid whitish in the outer half.

Top of the head black with some sordid yellowish scales in the center, the eyes bordered with bright yellow. Top of palpi black and yellow. Tegulae and base of thorax with yellowish-brown hairs. Beneath the palpi are whitish; the pectus whitish; thorax sordid whitish; abdomen pale yellowish brown to whitish. Antennae black on both sides, a narrow yellow ring at the base of the club; the club yellow beneath.

FEMALE.—Similar to the male.

EXPANSE.—Male, 24 to 26 mm.; female, 28 mm.

TYPE MATERIAL.—Holotype male, allotype female and one male paratype, Massaranduba-Blumenau, Santa Catharina, Brazil.

Danius is smaller than *Vehilius scheria* Ploetz which it somewhat resembles on the upper side, although *scheria* lacks the indistinct spots of the primaries. On the under side *scheria* does not have the yellow veins and streaks and the violet sheen is less deep in color.

Vehilius madius, new species

Figure 9

MALE.—Upper side of both wings brown. Primaries with eight opaque yellow spots, three subapical, the lower of which is the larger; two in the cell near the apex, the upper one elongate, the lower one much smaller and roundish; three discal in interspaces 1, 2 and 3, the lower one small and somewhat triangular, lying on vein 1, the one in interspace 2 elongate and oblique, slightly excised on the outer side, the one in interspace 3 longer than wide. Some yellow hairs on the basal half of the costal margin and below vein 1 near the base. Fringes concolorous, a little paler at the tip.

Secondaries with indistinct yellowish spots, one in the end of the cell and three in the form of a discal band. Fringes as on the primaries.

Beneath brown. The primaries with a bright yellow costal streak from the base to vein 11; a yellow streak between each vein from there to vein 2, those between veins 6 and 8 extending inwardly to the subapical spots, the streak between veins 5 and 6 is very long and extends through the center of the cell for about two-thirds its length; below vein 2 there is a narrow yellow marginal line. All of the spots of the upper side are repeated a little larger and bright yellow, the spot in interspace 1 is paler and diffuse.

Secondaries with a yellow marginal line extending from the base of the wings to the anal angle. All the veins are yellow in whole or in part; between the abdominal fold and vein 8 there is a yellow streak in each interspace which extends inwardly to the spots of the discal band; the streak below vein 6 extends entirely through the center of the cell to the base of the wings; the three discal spots and the cell spot of the upper side are repeated, larger, better defined and bright yellow and in addition there are two more spots above and one below in the discal band. The abdominal fold is lightly overscaled with yellow.

Top of head, palpi and collar yellow and black; shoulder covers and tegulae sordid yellowish with a slight green reflection; thorax and abdomen brownish. Beneath palpi yellow and black; thorax yellow; abdomen yellowish white. Antennae black above; beneath black with some yellow scales, the club yellow.

EXPANSE.—28 mm.

TYPE MATERIAL.—Holotype male, Massaranduba-Blumenau, Santa Catharina, Brazil.

In the spotted appearance of the upper side *madius* most nearly resembles *Vehilius venosus* Ploetz but the middle spot of the discal band of the primaries is taller than wide and in *venosus* it is the reverse of this, and on the under side *venosus* lacks the streaks between the veins and the color of the maculation is paler.

Vehilius putus, new species

Figure 10

MALE.—Upper side of both wings dark brown. Fringes slightly paler, especially at the anal angle.

Beneath both wings dark brown. Primaries with all the veins below the costal margin, at the apex and outer margin to vein 2 bright yellow and a pale stripe above and one below vein 1 in the outer half of the wings. A narrow, dark outer marginal line. Secondaries dark brown with a purple tint except in the abdominal fold. All the veins are bright yellow. A marginal band of small yellow spots between the veins and a curved discal band of from three to five similar spots, all of which tend to be somewhat elongate. Fringes paler than above, becoming yellowish along the inner margin.

Top of head and palpi blackish brown with yellow dots. Thorax dark brown with some yellowish hairs at base of tegulae and in the shoulder covers; abdomen dark brown. Beneath the palpi are yellow fulvous with some black hairs; the outer sides of the palpi are bright yellow narrowly edged with black and there is a bright yellow spot under the eyes. Pectus fulvous brown, thorax grayish brown; abdomen pale brown with a dark brown central stripe. Antennae black on both sides, the apiculus and base of the club beneath yellow.

EXPANSE.—28 to 30 mm.

TYPE MATERIAL.—Holotype male and three male paratypes, Putumayo River region, Peru.

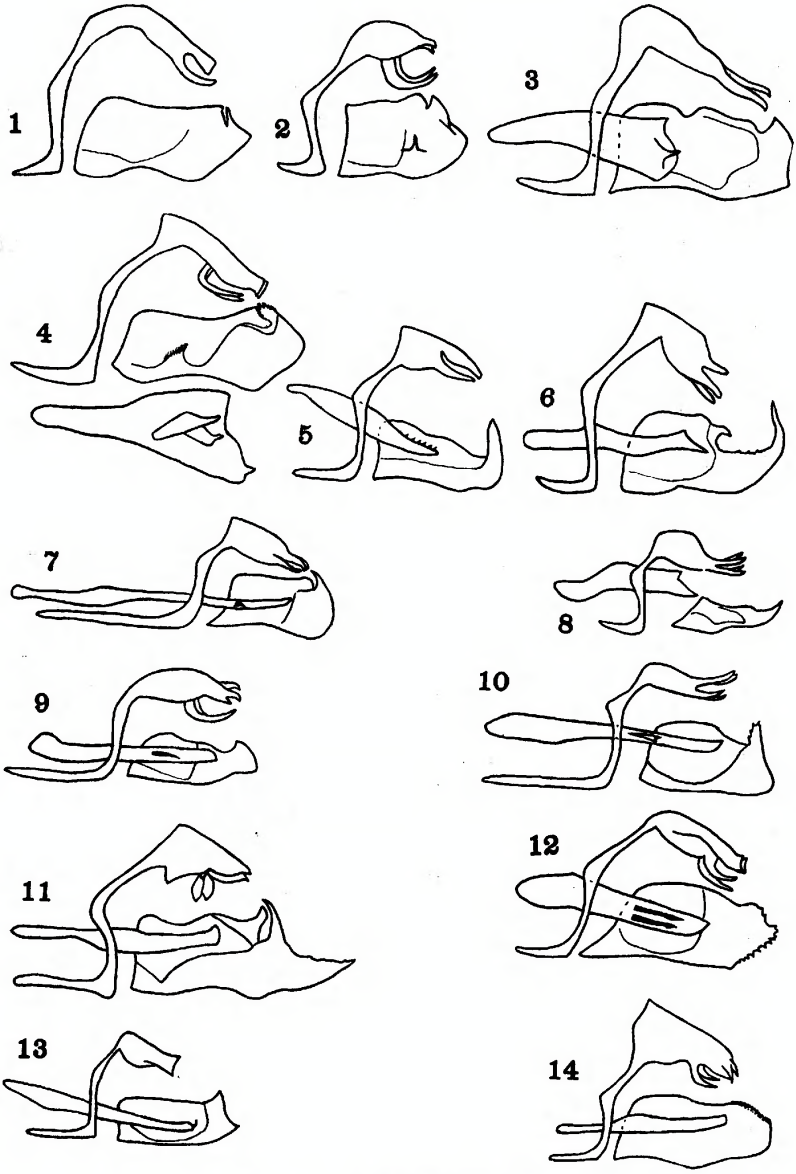
Putus is somewhat larger than *Vehilius venosus* Ploetz and lacks the maculation of the upper side of the wings.

Lerodea schwarzi, new species

Figure 11

MALE.—Upper side blackish brown. Primaries with from two to three small orange fulvous subapical spots, sometimes only the lower one really distinct; a rather narrow discal band of five similarly colored spots, two of which are in interspace 1 and may be partly fused into what appears to be one irregular spot, the upper spot in interspace 4 is very small. Rusty fulvous overscaling in the basal half of the costal margin. Fringes orange fulvous, from vein 2 to the apex intermixed with dark brown. There is no stigma.

Secondaries with a rather broad discal band of four orange fulvous spots of which the one between veins 4 and 6 is the longer. Basal area



Figs. 1 to 14. Male genitalia.

and along abdominal fold with long rusty fulvous hairs. Fringes orange fulvous.

Beneath: Primaries with the subapical spots repeated and those three of the discal band lying between veins 2 and 5, and sometimes a slight indication of the upper edge of the upper spot in interspace 1. The ground color is blackish brown, overscaled with rusty fulvous broadly along the costal margin, apical area and outer margin to vein 2 and sometimes narrowly from there to the inner angle. Secondaries rusty fulvous, the discal band of the upper side repeated in a little paler color; at the end of the cell an ill-defined darker spot.

Upper side of head and body blackish with rusty fulvous hairs. Beneath palpi and pectus fulvous with some black hairs; thorax sordid fulvous brownish; abdomen fulvous. Antennae black above with some fulvous scales, especially at the base of the club; beneath fulvous a little spotted with black below the club.

FEMALE.—Similar to the male. The abdomen beneath blackish brown.

EXPANSE.—Male, 26 mm.; female, 28 mm.

TYPE MATERIAL.—Holotype male, allotype female, one male and one female paratype, near Cali, Western Cordillera, Colombia; one male paratype, road from Queremal to Buenaventura, Western Cordillera, Colombia. These specimens were collected at altitudes ranging from 3500 to 6500 feet.

This species is named for Mr. Herbert F. Schwarz, who, with Mr. E. I. Huntington, collected the specimens.

Schwarzi has very much the same form of the male genitalia as that of *Lerodea noctis* Ploetz, differing in slight details, and it also differs from that species in that the primaries are a little less apically pointed and the secondaries less produced at the anal angle. On the upper side of the wings the maculation is much more extensive and deeper orange fulvous than in *noctis* and on the under side entirely different.

Lerodea remea, new species

Figure 12

MALE.—Upperside of both wings brown. Primaries with five spots, two very small ones subapical, ill defined and indistinct, formed by a few yellowish scales; a small indistinct yellowish spot just above vein 1 near the middle; an oblique, somewhat oblong spot between veins 2 and 3; a small roundish spot above it in interspace 3, these last two spots are pale yellowish white and semihyaline. Costal margin bordered with dark fulvous to nearly the apex of the wings. Fringes paler than the wings.

Secondaries immaculate, with long yellowish hairs along the abdominal fold. Fringes as on the primaries.

Beneath a little paler than above. The three discal spots of the primaries are repeated, that in interspace 1 larger, whitish and diffuse. Secondaries with a light overscaling of sordid whitish. Both wings have a narrow, dark marginal line.

Head, palpi and body above with fulvous and fulvous brown hairs. Beneath palpi, pectus and thorax are fulvous brown, abdomen grayish brown. Antennae missing except a short piece and this is narrowly black above and ringed with yellow; beneath yellow, edged with black at each joint.

EXPANSE.—31 mm.

TYPE MATERIAL.—Holotype male, New Bremen, Santa Catharina, Brazil.

On the upper side of the primaries *remea* somewhat resembles *Lerodea tripunctus* Herrich-Schaeffer but the subapical spots are less distinct and the upper two discal spots are larger; on the under side of the secondaries there is no trace of the discal band found in *tripunctus*.

Parphorus nemorus, new species

Figure 13

MALE.—Upper side blackish brown. Primaries with two minute subapical spots in interspaces 6 and 7 and a trace of one in interspace 8; a discal band of four bright yellow spots, a small one in interspace 1, a larger, somewhat elongate one in interspace 2, a small one in interspace 3, a very minute one, barely discernible without a lens, in interspace 4; a few fulvous scales along the costal margin from the base to the end of the cell. The usual form of the male stigma. Fringes paler than the ground color.

Secondaries with a hazy discal band of four small dull fulvous spots. Along abdominal fold with long dull fulvous brown hairs. Fringes sordid whitish.

Beneath: Primaries along the costal margin and in the apical half dull fulvous brown, the rest of the wings blackish brown. Veins in the apical area slightly paler. The subapical spots are faintly repeated; the discal spots in interspaces 2 and 3 are repeated and bright. Secondaries dull fulvous brown, the veins slightly paler; the discal band dimly repeated.

Top of head, palpi and thorax brown intermixed with dull fulvous with a slight greenish reflection. Beneath palpi and pectus fulvous and black; thorax dull fulvous; abdomen whitish. Antennae black above; beneath spotted with yellow, the club yellow below the apex.

EXPANSE.—24 mm.

TYPE MATERIAL.—Holotype male, New Bremen, Santa Catharina, Brazil.

This species is similar to *Parphorus storax* Mabille but differs on the upper side in the darker ground color and in the spots of the discal band of the primaries being better defined and more separated and on the secondaries having the faint discal band of spots. On the under side in the dull fulvous ground color and in the veins being only slightly paler and not prominently yellow as in *storax*.

Carystus klugi, new species

Figure 14

MALE.—Upper side dark brown. Primaries with a small ovate subapical spot in interspace 6 and a very tiny dot above it in the type but missing in the paratype; a discal band of three spots in interspaces 1, 2 and 3, the spot in interspace 1 is yellow, the others yellowish white and semihyaline; a yellow inner marginal stripe below vein 1 from under the lower spot of the discal band to near the base of the wing. Fringes concolorous, slightly paler at the inner angle.

Secondaries with a straight, narrow discal band of six yellow spots barely separated by the veins. Fringes slightly paler brownish, a little tinged with yellowish at the anal angle.

Beneath: Primaries paler brown and a still paler area beyond the end of the cell. Spots of the upper side repeated, the one in interspace 1 white, and another small white spot under the discal spot in interspace 2. Secondaries brown in the basal half of the costal margin; a broad marginal brown band, widening from the outer angle to the abdominal fold; an indefinite and irregular brown discal band; a brown bar at the end of the cell; all the rest of the wings white except the extreme anal angle area, which is suffused with pale brown.

Top of head, palpi and thorax dark fulvous brown; abdomen brown. Beneath palpi, pectus and thorax grayish white; abdomen sordid whitish. Antennae black, beneath with some grayish scales at the base of the club and on the apiculus.

EXPANSE.—35 mm.

TYPE MATERIAL.—Holotype male and one male paratype, Iquitos, Peru.

This species is named for Mr. G. Klug, of Iquitos, Peru.

Klugi is of the size and general appearance of *Carystus artona* Hewitson, differing on the upper side of the primaries in lacking spots in the cell and in the larger discal spots. On the secondaries in the spots of the discal band being yellow, larger and very close together. On the under side the maculation is entirely different from *artona*.

Callimormus igarapus, new species

Figure 16

MALE.—Upper side brown. Primaries with two small, ill-defined, pale yellowish subapical spots in interspaces 6 and 7 and sometimes a trace of another one in interspace 8; a minute yellowish dot in the lower corner of the apex of the cell, absent in some individuals; a discal band of three small spots, yellowish white to orange-yellow, the upper one a small streak in the base of interspace 3, the next below subquadrate, the lower one elongate and ill defined. An indistinct V-shaped stigma in the base of interspace 2. Fringes paler brown, sometimes becoming whitish at the tip.

Secondaries with a discal band of three or four ill-defined pale spots. Fringes whitish, mixed with pale brown.

Beneath: Primaries brown, apical area and a little below it paler. The spots of the upper side are repeated paler, except that on vein 1 and sometimes there is a trace of that one. A few yellowish scales in the basal half of the costal margin. A dark outer marginal line. Secondaries with a rather broad, pale brown outer marginal band unevenly overscaled with grayish, followed inwardly by a discal band of grayish spots beginning between veins 7 and 8 and ending on the abdominal fold, and somewhat angled opposite the end of the cell. The area between the discal band and the base of the wings is brown, unevenly overscaled with grayish except immediately behind the discal band, where a spot-like band of brown is left without the overscaling. The gray overscaling is heavily accumulated at the end of the cell, producing a narrow, ill-defined gray bar; and sometimes there is a heavy accumulation at the lower spot of the discal band, extending this spot along the abdominal fold to the margin of the wing. The uneveness of the gray overscaling produces a very mottled appearance to the basal half of these wings.

Top of head and palpi grayish brown with some fulvous hairs; body brown. Beneath the palpi are grayish white with some black or brownish hairs; pectus whitish; thorax grayish; abdomen whitish, becoming yellowish white at the anal end, and with or without a thin brown central line. Antennae black above; beneath spotted with yellow, the club pale yellow, the apiculus red.

FEMALE.—Similar to the male, the spots of both wings smaller.

EXPANSE.—Male, 20 to 22 mm.; female, 19 mm.

TYPE MATERIAL.—Holotype male, Santos, Brazil; allotype female, Igarapi-Assu, Para, Brazil. Three male paratypes: Santos and Igarapi-Assu, Brazil; Georgetown, British Guiana. One female paratype, Bartica, British Guiana.

This species resembles *Callimormus corades* Felder but differs on the upper side in having the spots of the primaries smaller and paler and in having a distinct discal band on the secondaries. On the under side in the reduced yellow overscaling on the basal half of the costal margin of the primaries and in the very mottled appearance of the secondaries.

Callimormus corus, new species

Figure 17

MALE.—Upper side dark brown. Primaries with a few yellow scales near the apex, which form hazy subapical spots in interspaces 7 and 8. An indistinct discal band formed of small accumulations of yellow scales in interspaces 1, 2 and 3. A small, indistinct stigma in the base of interspace 2. Fringes slightly paler than the ground color, becoming sordid whitish at the tip at the anal angle.

Secondaries with dull fulvous hairs over the disc and along the abdominal fold. Fringes sordid whitish.

Beneath paler brown. Primaries with the veins in the costal and apical areas narrowly sordid yellowish. Secondaries with the veins narrowly sordid yellowish and the entire wings sparsely covered with sordid yellowish scales, which ac-

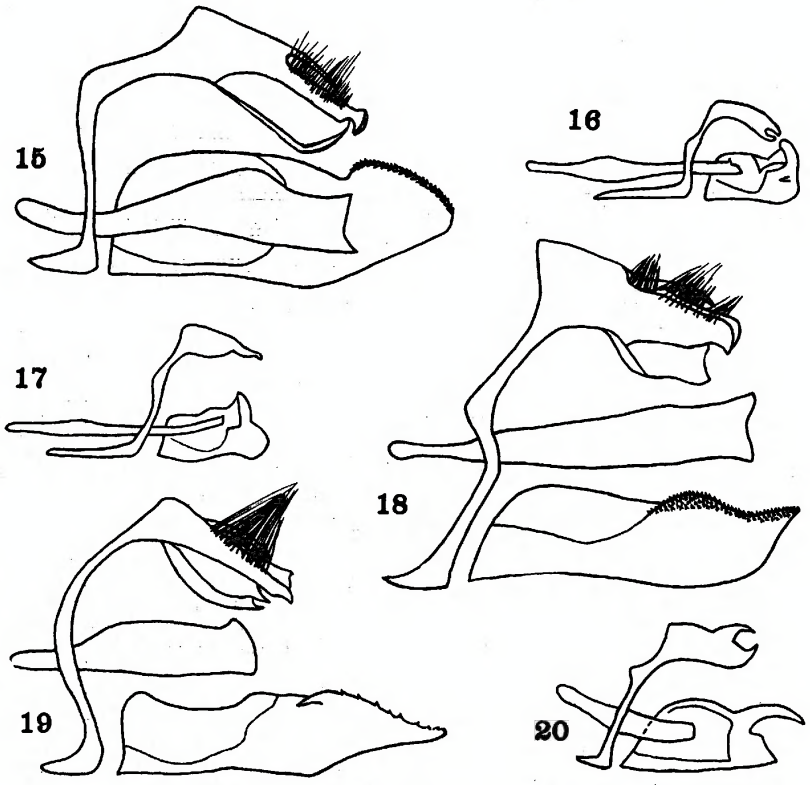
cumulate to form a discal band of small hazy spots.

Head, palpi and body above brown with dull fulvous hairs. Beneath the palpi are sordid whitish and black hairs intermixed. Pectus, thorax and abdomen sordid whitish. Antennae above black, beneath minutely spotted with fulvous, the basal half of the club yellowish.

EXPANSE.—22 mm.

TYPE MATERIAL.—Holotype male, Para, Brazil.

On the upper side *corus* greatly resembles *Callimormus gracilis* Felder but differs beneath in the less prominently yellow veins of both wings and in the yellow overscaling of the secondaries.



Figs. 15 to 20. Male genitalia.

Mnestheus zareus, new species

Figure 20

MALE.—Upper side of primaries with the costal margin rusty fulvous as far as the end of the cell, from there a black marginal band begins and extends all the way around the apex and outer margin to the inner angle, widening a little from the apex downward. Another black band extends from the base of the wings through the cell and merges with the beginning of the marginal black band, this band entirely fills the cell, except a small brighter fulvous spot opposite the base of interspace 3, and extends a little beyond the apex in interspaces 4 and 5, and below the cell in the extreme base of interspace 2 and just below it in the upper half of interspace 1. The disc of the wings is bright fulvous from interspace 6 to the inner margin, the part between interspaces 4 and 6 is much narrower than the rest and the spot in interspace 6 extends a little inward of those below it so the band gives the appearance of being hooked at the top. The fringes are darker fulvous. The stigma is inconspicuous and consists of two small stripes, one lying along vein 2 in the base of interspace 2 and the other immediately below it on the under side of vein 2, both of the stripes lie in the downward extension of the black band which passes through the cell.

Secondaries black with an oblong, fulvous discal band and a small fulvous spot in the end of the cell, which is almost fused with the discal band. A narrow stripe of somewhat darker ful-

vous hairs along the edge of the abdominal fold. Fringes fulvous.

Beneath: Primaries black at the base below the costal margin, also inner margin narrowly, outer margin broadly from inner angle to vein 2, a spot in interspace 2 not reaching the margin and a few scales above it in interspace 3, an irregular spot just beyond the apex of the cell. The discal band and cell spot repeated bright fulvous, the cell spot larger. Costal margin, apical area and outer margin to vein 2 reddish fulvous. Secondaries reddish fulvous with an indefinite suggestion of the discal band of the upper side. Abdominal fold black, except along the inner margin, and with a slight overscaling of reddish fulvous. Fringes at anal angle somewhat paler than those above it.

Top of head, palpi and thorax reddish fulvous, abdomen paler fulvous. Beneath, the palpi and pectus fulvous and reddish fulvous. Thorax reddish fulvous, abdomen yellowish fulvous. Antennae black above, beneath yellow, on the sides spotted with yellow.

FEMALE.—Similar to the male, the fulvous areas reduced and on the secondaries the small spot in the end of the cell is missing.

EXPANSE.—Male, 29 to 32 mm.; female, 32 mm.

TYPE MATERIAL.—Holotype male, allotype female and one male paratype, Joinville, Santa Catharina, Brazil.

This insect is similar in superficial appearance to *Padraona krexos* Ploetz as figured by Draudt (in Seitz, 1924, Macrolepidoptera of the World, V, plate 183e) but differs on the upper side in that the discal band of the primaries does not extend so near to the costal margin and is much wider from vein 4 downward and on the under side of these wings in that the black outer marginal band at the inner angle does not follow the margin above vein 2 but turns inward, and the veins in the apical area are not yellow. On the secondaries beneath the veins are not yellow and the abdominal fold is black except along the abdominal margin.

Talides alternata, new species

Figure 15

MALE.—Upper side of both wings rufous brown. Primaries with outer margin a little rounded; secondaries broad and outer margin prominently rounded.

Primaries with eight yellow hyaline spots as follows: four subapical, elongate, the lower the larger and placed a little outward of those above it, the upper in interspace 9 smaller than the others; a large one in the cell near the apex, slightly constricted in the middle; a discal band of three, the lower one very small on vein 1 a little beyond the center, one vertical extending across interspace 2 just beyond the stigma, broader at the bottom than at the top, thus somewhat triangular in shape; a subquadrate one in interspace 3. Costal margin broadly ferruginous in the basal half, this color extending over the basal third of the wings and along a little more than half of the inner margin. The fringes ochraceous, purely so at the inner angle and a little suffused with brownish above it to the apex. The usual gray stigma of the genus.

Secondaries with a very small yellow hyaline discal spot beyond the end of the cell. Basal area with ferruginous hairs. Fringes broad and entirely bright ochraceous.

Beneath the primaries with the costal margin and upper half of the cell, all of the apical area and downward along the outer margin reddish; all the rest brown except a diffuse yellow area around the small hyaline spot on vein 1; a marginal band of lilacine scales from the apex to vein 2. All of the hyaline spots repeated and a small yellow spot just above the cell spot. Fringes as on the upper side but with a narrow, brown subterminal line. Secondaries reddish, with an irregular discal band, but slightly darker than ground color and very indistinct, which extends around the cell and toward the base of the wings, above the end of the cell it is extended upward to the costal margin in a narrow line and toward the base again extended upward to vein 8. A narrow dark brown marginal line from vein 7 to vein 2, which is internally bordered by a narrow line of lilacine scales. The hyaline discal spot is repeated. Abdominal fold brown. Fringes at anal angle bright ochraceous, above there darker ochraceous suffused with brown and in this area with a narrow brown subterminal line.

Top of head, palpi and thorax ferruginous, abdomen ferruginous brown, anal tuft ochraceous. Beneath the palpi, pectus and thorax are ferruginous, abdomen ochraceous. Antennae above black, beneath black spotted with yellowish brown and the apiculus that color.

EXPANSE.—60 mm.

TYPE MATERIAL.—Holotype male, Santa Catharina, Brazil.

Alternata resembles *sinon* Cramer (*sergestus* auct.) and has about the same rounded wing shape as the female of that species. It differs from the male *sinon* in the much broader wings and their rounded outer margins; in the ground color of the wings being a more rufous brown; in the four hyaline subapical spots of the primaries (of the ten males of *sinon* at hand only one shows a very small subapical spot in interspace 9 and it is not hyaline); in the small hyaline spot of the discal band on vein 1 (only one of the series of male *sinon* above referred to has

a small spot in this position and it is not hyaline); in the upper spot of the discal band, in interspace 3, being far removed outwardly from the triangular spot in interspace 2, whereas in all of the *sinon* males at hand these two spots are close together; in the fringes being more deeply ochraceous and those of the secondaries much broader; and in the anal tuft of the abdomen being ochraceous. The under side is similar in color to some individuals of *sinon* but there is so much variation and the maculation of the secondaries is often so diffuse and indistinct that a comparison seems of little use.

Alternata differs from *sergestus* Cramer (*adjuncta* Ploetz) in being a little larger; with larger spots on the primaries; in having four instead of three subapical spots; in having the small discal spot on vein 1; in the ferruginous basal area of the wings and in the bright ochraceous fringes. On the under side the maculation of the secondaries is entirely different.

The form of the male genitalia is similar to that of *sinon* Cramer, differing in small detail in the termination of the claspers.

Godman, Biologia Centrali-Americana, III, plate 106, figure 24, illustrates the male genitalia of *sinon* (as *sergestus*) and in figures 25 and 26, the upper and under sides of a "variety" of *sinon* (as *sergestus* var.). The figure of the male genitalia shows a broad, truncate termination of the claspers and our examinations have shown that the termination may vary from this form to one that is gradually rounded upward. The figure of the upper side of the "variety" shows a different disposition of the spots in interspaces 2 and 3 of the discal band of the primaries, between the right and left sides, a difference which may be due to artistic reproduction rather than a natural occurrence. The figure also shows four subapical spots, a spot on vein 1, and decidedly ochraceous fringes. *Alternata* differs from this figure in that the spot of the discal band of the primaries in interspace 3 is placed a little farther outwardly from that in interspace 2 than is shown on the right side of the figure; in the spot in interspace 2 being more triangular; in the spot on vein 1 being much smaller, as is also the discal spot of the secondaries. On the under side there is considerable similarity, differing on the primaries in the inner marginal spot of the discal band being not a sharply defined spot but a diffuse yellow area surrounding the small hyaline spot; on the secondaries in the small yellow spot between veins 6 and 7 in the figure being not present, and neither are the two darker spots of the figure. Also the fringes of the secondaries of *alternata* are broader.

For comparison with the genitalia of *alternata* a figure is given of the more rounded form of *sinon* clasper (Fig. 18) and also one of the genitalia of *sergestus* Cramer (Fig. 19), more commonly known as *adjuncta* Ploetz.

K. J. Hayward, 1939, Physis (Revista de la Sociedad Argentina de Ciencias Naturales), XVII, p. 301, has published a note correcting the usual misconception of *sinon* Cramer and *sergestus* Cramer.